

# Karan Gurazada

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## **Education**

### **Leigh High School, San Jose, CA - Class of 2021**

- 4.58 GPA
- Class Rank: 1 of 449

### **Stanford Online High School, Redwood City, CA - Class of 2021**

- Take advanced courses not available at Leigh High School: Data Structures and Algorithms, Differential Equations, Linear Algebra, Multivariable Calculus, Modern Physics, Light and Heat

### **Standardized Tests**

- SAT - 1570/1600
- SAT Subject Test - Math Level 2 - 800/800
- SAT Subject Test - Chemistry - 800/800
- 2019 National AP Scholar
- 2019 and 2018 - AP Scholar with Distinction
- AP Computer Science A - 5/5
- AP Calculus BC - 5/5
- AP Calculus AB - 5/5
- AP Physics 1 - 5/5
- AP Chemistry - 5/5
- AP Biology - 5/5
- AP Macroeconomics - 5/5
- AP United States History - 5/5
- AP World History - 5/5

## **Awards**

- AIME Qualifier 2020 (American Invitational Mathematics Exam)
- USA Physics Olympiad (USAPhO) Qualifier 2020
- USA Computing Olympiad (USACO) Silver Level 2018
- USA National Chemistry Olympiad (USNCO) National Qualifier 2020
- National Academic Quiz Tournaments (NAQT) Rising Star Sophomore 2019

## **Programming Experience**

- GitHub repository: <https://github.com/kgurazad/>
- Languages: Java, Python, node.js, JavaScript, CoffeeScript, C++, Elixir, Shell
- Systems: Linux systems design
- Databases: SQL, MongoDB

### **QuizBug 2**

- Website: <http://quizbug2.herokuapp.com/>
- Project: <https://github.com/kgurazad/quizbug2>

- A question reader application that quizbowlers use to self-study or just to have fun. Users can specify criteria such as difficulty and subject area to change the questions that the app brings up; the app has over 80,000 unique questions in its database.
- The app had nearly 500 unique users over the past month, and over 150 unique users over the past week.
- Stack: Heroku, jQuery, node.js, express, mongoose, MongoDB, CoffeeScript

## Buzzinga

- Project: <https://github.com/kgurazad/buzzinga>
- A computer app that simulates a buzzer on the local network; players can connect to the computer's local IP on their phone and a page simulating a buzzer will be displayed. The app is intended to serve as a buzzer system replacement for low-income schools that cannot afford one.
- Stack: node.js, Electron

## Ising

- Project: <https://github.com/kgurazad/ising>
- A graphical simulation of the Ising model for ferromagnetism. The simulation uses a Metropolis algorithm, which uses a Boltzmann factor to calculate the probability of each dipole flipping and advances the system by discrete time amounts.
- Stack: Java, Swing

## **Extracurricular Activities**

### Teaching and Volunteering

- Tutored middle schoolers in Java coding at Union Middle School, 2018-2019
- Peer tutor students in math and science as part of Leigh High's NHS chapter
- Volunteer for the Quizbowl community by staffing and moderating at middle school, high school, and college quizbowl tournaments throughout Northern California

### Academic Quizbowl

- Club President and Founder, Stanford Online High School quizbowl Club
- Team Captain and Top Scorer
- Represented California at the 2018 and 2019 National All-Star Academic Tournament; Top scorer of the entire tournament in the prelims of the 2019 NASAT.
- Writer and Editor of science questions for high school tournaments.

### Science Bowl

- Team Co-Captain and Top Scorer, Stanford Online Science Bowl Club
- 3rd place team at the 2020 SLAC Science Bowl Regional Competition

### School Clubs

- Stanford Online High School Quizbowl Club - President
  - Awarded "Club Leader with Distinction" - 2019, 2020
- Leigh High School Cybersecurity Club - Co-President
- Leigh High School Coding Club - Co-President